

Practical Steps Toward Healthier Cities and a Cleaner Global Environment

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U.S. programs help cities around the world as they work to reduce pollution. A senior official with USAID explains why and how the United States supports these initiatives.

Concerns about deteriorating urban environmental conditions and their long-range implications have become a critical component of U.S. foreign policy initiatives. Cities in the developing world are growing rapidly. In these burgeoning urban areas, the pace and scale of growth have outstripped the capacity to maintain acceptable standards of public health, environmental safety, and sustainable economic growth. Enormous burdens of ill health and reduced quality of life affect citizens in those cities. Further, those conditions exacerbate global environmental problems and pose very real threats to U.S. national interests.

The immediate effects on local communities are severe. A high incidence of respiratory problems, diseases linked to poor sanitation and bad water, and illness from exposure to toxic substances rob families of their health, vigor, and dignity. Quality of life is reduced. The ability to earn a living is compromised. Children learn less, learn more slowly, and miss much of their schooling. Expenditures on medical care and medicines are excessive. Loss of lives, injuries, and damage to houses and property are greater when natural disasters strike. All families are exposed in varying degrees, but those most severely affected are the poorest families living in crowded inner-city areas and squatter communities.

Poorly-managed cities contribute, in growing measure, to several global environmental concerns. Growing economies need expanding supplies of

power and fuel, but inefficient, polluting power sectors, poor transportation policies, and wasteful use of energy pump needlessly high amounts of greenhouse gases into the atmosphere. The lack of basic urban environmental infrastructure in most cities in the developing world channels a torrent of untreated sewage and waste into rivers, lakes, and coastal zones, damaging ecosystems and threatening the productivity and safety of water bodies.

These problems are most intense in the cities where they originate, but they also jeopardize U.S. interests in a number of different ways. Urban environmental problems undermine sustainable economic expansion. Unstable economies can lead to a rising tide of economic refugees. Increasingly unlivable cities are more susceptible to social unrest and political instability. Robust new strains of "exotic" diseases that first appeared in the overcrowded slums of poorly-managed cities overseas are showing up with increasing frequency in U.S. communities, inadvertently imported by visitors, returning travelers, or the swelling numbers of environmental refugees abandoning their increasingly unlivable cities.

Humanitarian concerns and the need to protect U.S. citizens motivate this country's keen interest in helping other nations improve their management of urban growth and environmental conditions. This aid effort works through several government channels, with USAID handling most urban environmental initiatives overseas.

What help does USAID offer?

Every city is different, and each confronts unique challenges in dealing with urban environmental

problems, but five elements—and a context that encourages broad participation and ensures transparency of information—are crucial to any effective approach:

- a broadly-shared, informed understanding of the problems and of workable solutions;
- a suitable legislative and regulatory framework;
- capability and competence in the government, entrepreneurial, and civic sectors;
- suitable technologies;
- and realistic financing options.

USAID provides support on each of these important elements. Many of the tools, techniques, and approaches that have been developed through decades of research, investment, and hands-on experience in the industrialized world can be usefully adapted and applied in developing cities. USAID draws heavily on U.S. experience and expertise—from both the public and private sectors—in helping to make urban environmental management initiatives successful in other nations.

INFORMED UNDERSTANDING: The first step is to achieve a better understanding of what the issues are, what the potential solutions could be, and what they will require.

USAID supports the development of environmental management plans, which are based on collecting sound data and assessing the risks to public health posed by pollution. Intuitively, we know that air reeking with exhaust, laced with lead and carbon monoxide, is unhealthy. But only in recent years have we developed the techniques to measure how many years of lost life and productivity such polluted air will cost a nation. Information of this kind works to bring together parties who may share an adversarial history.

In developing an informed understanding of the problems and their possible solutions, genuine, broadly inclusive participation—the bedrock of democratic systems of governance—is crucial. Too often, those most at risk—including women, children, and the poor—are the least likely to be

included. Only truly participatory approaches can ensure that their views are heard, that their needs are considered, and that their wisdom and special insights will enrich the deliberations.

A study in the Gujarati city of Ahmedabad carried out by the Indian Centre for Environmental Planning and Technology (CEPT), with support from USAID, demonstrates the importance of establishing this informed understanding. The single most important finding of the CEPT study was that, contrary to generally-held views about the local environment, Ahmedabad's water quality problems were not as severe as those related to air quality. This finding, substantiated by the rigorous methodology employed by CEPT, enabled the municipal government and local industries to shift their priorities for investments in environmental management, leading to more efficient use of Ahmedabad's limited funding.

In New Delhi, about 70 percent of the vehicle fleet is made up of used two-wheeler scooters and motorcycles, almost all with polluting two-stroke engines. More than 65,000 vehicles were tested and given maintenance in a program cosponsored by USAID and the Society of Indian Automobile Manufacturers. The inspection camps helped to raise citizen awareness of the benefits of proper maintenance to help reduce New Delhi's severe air pollution and provided important data that manufacturers and urban planners will use in the future to further reduce emissions.

FRAMEWORK FOR ACTION: USAID helps to craft and put in place a suitable framework of laws and regulations to address urban environmental problems. Often, the challenge is not to draw up national legislation, but to find the combination of regulations and practices that put "teeth" into the laws. While enforcement is important, even greater gains can be achieved by finding effective ways to expand voluntary compliance by all actors.

At the International Conference on Regulations and Standards for the Protection of the Urban Environment held in Santiago, Chile, in 1998, USAID's Environmental Law Program provided city officials and representatives of municipal associations from throughout the region with an overview of regulatory tools that promote

sustainable urban environmental management. The meeting enabled experts to share valuable legal and urban management experience. Issues addressed included reducing pollution, delivery of urban services, innovative regulatory strategies, and special enforcement issues facing cities in the region. The principal result was increased awareness of proven strategies for using environmental law and policy to achieve sustainable urban management.

USAID's activities in Europe and Eurasia further demonstrate several important linkages between environmental policy and broader economic and political reforms:

- Strengthening nongovernmental organizations (NGOs) has increased local capacity for policy analysis and development.
- Developing market-based instruments for environmental protection (for example, pollution charges, emissions and effluent trading) has lowered compliance costs, produced cleaner air and water for all, and generated revenues to fund regulatory agencies.
- Decentralizing resource management decisions to local-level, river basin commissions and water user associations has led to more efficient resource management and provided models for local democratic institutions and public participation.
- Development of environment funds and preparation of well-conceived projects has generated increased resources for environmental investment and stimulated development of private capital markets.

CAPABILITY: Even with improved understanding of the issues and a suitable set of laws and regulations, most developing nations need to build their capacity to use the information and the rules effectively. Capability is a blend of science, leadership, management skills, patience, and creativity. It must serve as a guiding principle for local governments, NGOs, schools, community associations, academic and research organizations, and the private entrepreneurial sector. Genuine progress can be made when all these organizations and institutions share a common understanding of their problems and goals.

USAID supports capacity-building with a wide variety of resources including technical assistance; training; exchange visits; and partnerships with U.S. businesses, research organizations, and local governments. With USAID support and guidance, the Indian NGO EXNORA and the state government helped transform the nomadic Narikuravas from largely unemployed slum dwellers to organized "street beautifiers" who earn a living by collecting, composting, and recycling waste. Guided by the watchwords "EXcellent, NOvel, and RAdical," EXNORA has enabled the Narikuravas and other slum communities to improve their own economic status and help resolve solid waste management problems in cities of the Indian states of Tamil Nadu and Kerala.

In India, Indonesia, Korea, Nepal, Philippines, Sri Lanka, Taiwan, and Thailand, the U.S.-Asia Environmental Partnership (US-AEP), a USAID regional program, has awarded grants to 53 NGOs to promote improved environments through business partnerships. For example, in Hyderabad, the Centre for Resource Education worked with the Ravela Timber Group to propose process improvements that decreased resource waste and improved working conditions, while optimizing energy use and cutting production costs. In Bali, the Wisnu Foundation worked with the hotel industry to improve methods of waste disposal, which now include recycling half the wastes. Partnerships such as these have not only resolved specific problems, but have also done much to overcome past adversarial relations between these groups and to improve prospects for collaboration in the future.

Partnerships between U.S. entities and their counterparts overseas have proven to be one of USAID's most effective means of building capability for improved urban environmental management. Some of the most successful exchanges have been ones pairing U.S. and developing world municipal government officials in problem-solving relationships. (The Resource Cities Program is described elsewhere in this publication.)

Partnerships help moderate the environmental problems caused by industrial activity and power generation overseas. Over the past seven years, working with the U.S. Energy Association,

USAID's Energy Partnership Program has paired more than 35 overseas utilities and regulatory bodies with their U.S. counterparts. The partnerships have improved operations and public services, mitigated the impact of power generation on the environment, stimulated sales of U.S. technologies, and opened the door to emerging markets for U.S. utilities.

TECHNOLOGIES: Better technologies are almost always required for communities to make a transition to a healthier environment. But "better" technologies do not necessarily have to be "high-tech" or costly. Better technologies are those that allow a city to prevent environmental deterioration, rather than to contend with its consequences. Better technologies also fit the indigenous level of management capability and can be maintained by local technicians. Highly mechanized sewage treatment systems, for example, may be satisfactory for Washington, D.C., but entirely inappropriate for developing world cities if supplies of electricity, chemicals, and spare parts are not assured.

Severe environmental degradation in one of India's most sacred cities, Varanasi, is a compelling illustration. The city's mechanized, power-dependent wastewater system routinely floods the city with sewage backups, dumps raw sewage into places of worship on the Ganges river, and has contaminated the groundwater supplies for villagers near the treatment plant. The city government, working with the Sankat Mochan Foundation, an environmental NGO, wants to install a modern U.S.-designed ponding system that will reliably deliver safer effluent and improved environmental conditions for a fraction of the cost of upgrading the existing system to suitable standards. USAID is helping Varanasi and the Sankat Mochan Foundation develop a workable plan to implement this important initiative.

Rising standards of living and increasing levels of industrialization lead to greater per capita energy use, most of it urban-based, so USAID's initiatives to improve the efficiency of power plants, vehicular fleets, industries, and local governments are an effective way to help reduce growing urban environmental degradation. Nations working with

USAID have been able to "avoid" more than 6.1 million tons of carbon dioxide from 1985 to 2000, while improving the reliability and efficiency of their power and industrial sectors.

The importance of this achievement is hard to overstate. Not only has it resulted in significant improvements in environmental conditions and quality of life for the communities directly benefited, it has also:

- provided a more robust foundation for sustained economic growth;
- significantly reduced the effect of greenhouse gas emissions on the global environment;
- better positioned developing nations to be active participants in and contributors to the emerging task of improved management of the environmental commons;
- and created valuable opportunities for U.S. involvement in a huge emerging market for environmental goods, services, and partnerships.

FINANCING OPTIONS: Solutions come with a cost, and USAID helps developing world cities find suitable strategies to pay for the investments they need. One of the toughest challenges is paying for the basic urban environmental infrastructure that is lacking in most developing countries—satisfactory water, wastewater, and solid waste management systems.

Current approaches to the financing of basic urban environmental infrastructure are self-limiting, unpredictable, and not under the control of local governments. In the absence of well-developed domestic capital markets in much of the world, resources to pay for basic urban environmental infrastructure come primarily from national budgets or credits from donors and the development banks—the World Bank and the several regional development banks. Over the long term, these sources will be insufficient.

One workable option appears to be adoption of a financing mechanism similar to that used in housing and real estate in most nations, which channels short and medium-term resources into

long-term loans to make housing affordable to families across the economic spectrum. Another option is to improve prospects for local governments to be active participants in capital markets—domestically and internationally. Access to long-term financing, coupled with selective subsidies, can make environmental infrastructure affordable to all but the poorest cities. Given the long-term investments required, an important part of the effort has been to demonstrate that sound national fiscal policies will create a receptive setting for long-term lending.

It seems counterintuitive, but charging users the true cost of providing services makes infrastructure more affordable for the poor as well as for the wealthy. Approaches predicated on full-cost recovery can include a financing plan that is sustainable on a large scale, over time, and which provides carefully targeted subsidies. Such approaches are a substantial improvement over most current systems, which cater primarily to upper-income residents in well-established neighborhoods, leaving newer, poorer communities with little or no access to services.

Through several innovative programs, USAID is helping local governments and private sector actors to develop the partnerships and the financial tools they need to do the job. In India, through the Financial Institutions Reform and Expansion (FIRE) project, USAID supports the work of public, entrepreneurial, and community-based organizations. The major objectives of the FIRE project are:

- development of commercially viable urban environmental infrastructure projects that incorporate the needs of the poor;
- development of a sustainable infrastructure finance system and encouragement of private sector participation in service delivery;
- capacity building of urban local bodies in planning, implementation, operation, and maintenance of urban environmental infrastructure services;
- and establishment of an effective urban management training network.

How does USAID provide this assistance?

USAID missions are located in 73 developing and transitioning countries throughout the world. Many are actively working with host-country counterparts on a variety of activities to improve urban environments. The approaches vary to suit each setting and are often framed within broader initiatives to refine and strengthen the underlying fabric of democratic governance. Addressing the very real, stark issues affecting the health, livelihoods, and prospects of urban families and communities becomes a lasting illustration of the value of broadly representative participation by all sectors in society. Achieving tangible results from working together on common problems—often for the first time—is a powerful complement to electoral and judicial reform.

Individual USAID missions are supported by a network of Regional Urban Development Offices (RUDOs) located in Asia, Africa, Latin America, and Eastern Europe. These RUDOs provide technical and administrative support to missions and host country organizations active in making cities work. In coordination with missions, RUDOs also operate a variety of regional urban environmental activities and information networks, such as a Regional Municipal Finance Seminar series in South/Southeast Asia, a Regional Capital Markets and Municipal Finance Seminar in Africa, a Regional Urban Environmental Management Seminar program in South Asia, and the Latin American Center for Urban Management.

RUDOs also support missions and host-country counterparts in using USAID's Development Credit Program, an important resource to help developing nations move more quickly toward financial self-sufficiency for their infrastructure finance requirements.

Another important USAID resource is the U.S.-Asia Environmental Partnership (US-AEP) program, which operates through government, industry, and NGOs to address urban and industrial pollution. US-AEP improves Asia's access to environmental solutions and gives U.S. businesses access to Asian environmental markets.

The program provides technical assistance, grants, business exchanges, and study tours.

Conclusion

Responsibility for managing urban environmental conditions overseas ultimately rests in the hands of other nations' governments, businesses, scientific bodies, and communities themselves, but experience shows that U.S. involvement can speed and strengthen progress on improving urban environmental conditions. The United States is proud to be a partner in meeting the increasingly urgent challenge of making cities livable.

For more information on USAID urban environmental programs, visit www.genv.org/mcw/ or contact:

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